



Institute of Soil Science and Plant Cultivation
State Research Institute



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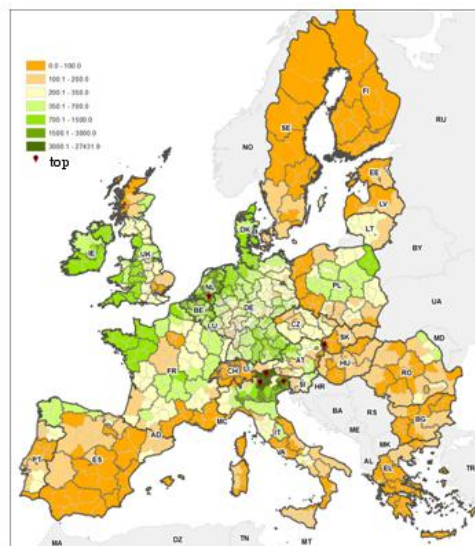
Geoportal of biomass potential in EU27+CH



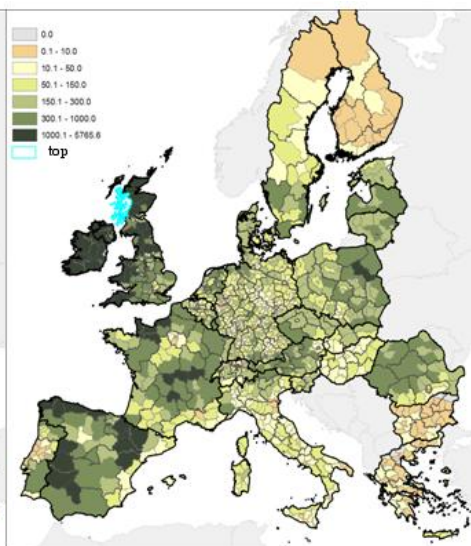
**This project has received
funding from the European
Union's Seventh Programme for
research, technological
development and
demonstration under grant
agreement No 282873**



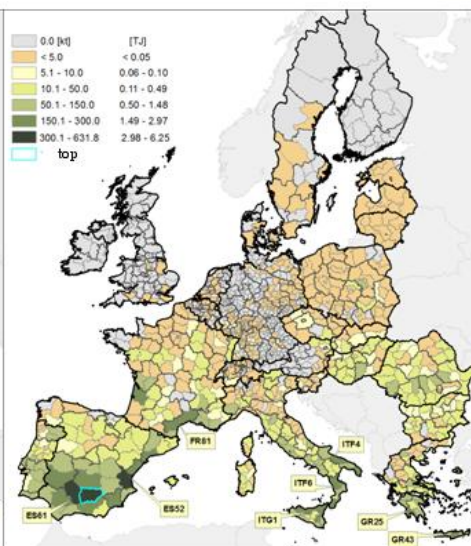
Samples of assessed feedstock potentials



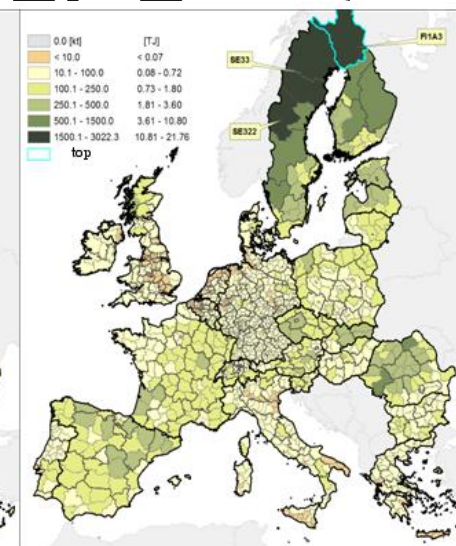
theoretical potential of manure production



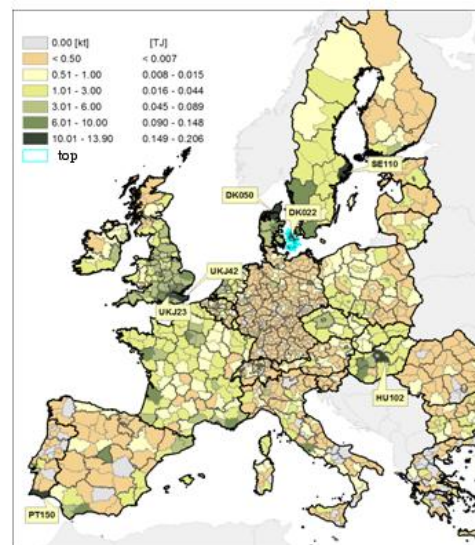
theoretical potential of hay yield



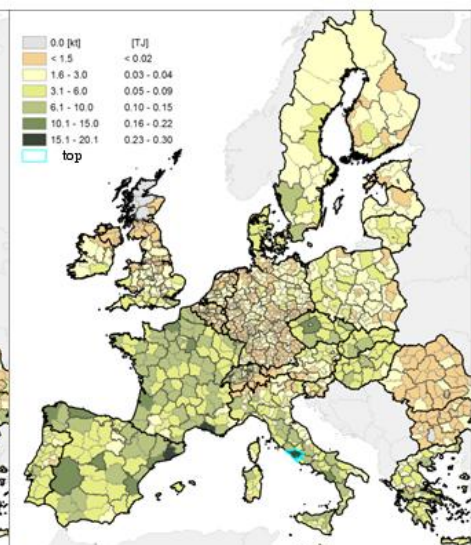
technical potential of biomass and energy from long-term plantations maintenance



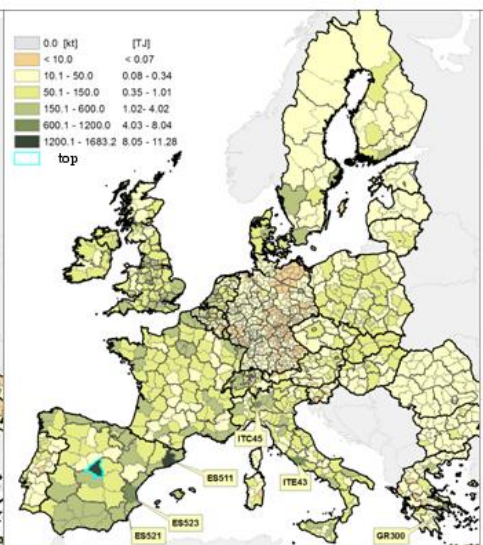
technical potential of biomass and energy from forest biomass waste



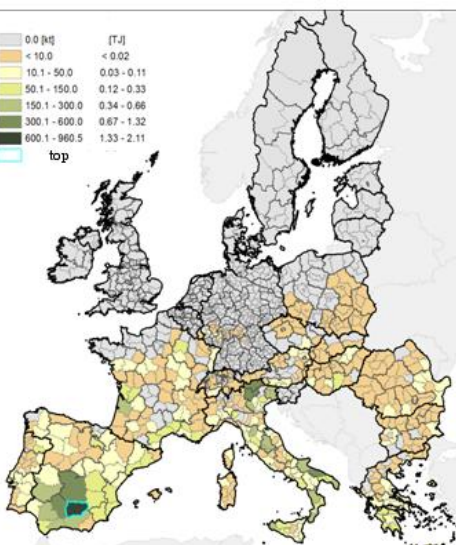
technical potential of biomass and energy from waste of urban greenery maintenance



technical potential of biomass and energy from the maintenance road side vegetation



technical potential of biomass and energy from biodegradable waste in the NUTS-3



technical potential of biomass and energy from food industry waste

Assessed technical potential of biomass

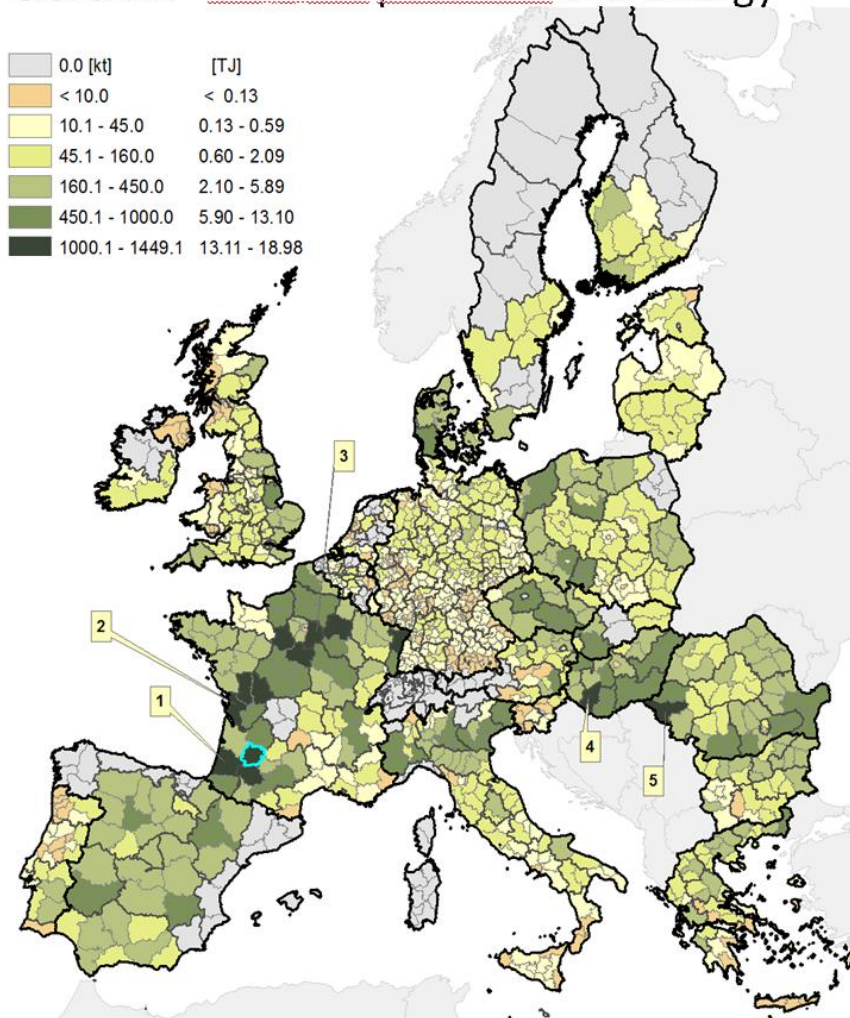


| | |
|--|--------------------|
| 1. Agricultural residues | |
| 1.1 Straw | 149.7 Mt (1960 PJ) |
| 1.2 Residuals of pruning | 15.4 Mt (152 PJ) |
| 1.3 Livestock residues | 21.4 Mt (21 PJ) |
| 1.4 Hay from permanent grassland | 6.9 Mt (92.6 PJ) |
| 1.5 Perennial crops | 50.5 Mt (948,5 PJ) |
| 2. Forestry residues | |
| Forestry residues | 117.9Mt (1186 PJ) |
| 3. Natural conservation matter | |
| 3.1 Green urban areas | 1.18 Mt (17 PJ) |
| 3.2 Hay and shrubs | 3.68 Mt (49 PJ) |
| 4. Roadside vegetation | 3.17 Mt (47 PJ). |
| 5. Urban and industrial waste | |
| 5.1 Biodegradable municipal waste | 71.2 Mt (477 PJ) |
| 5.2 Bio-waste of food industry | 14.3 Mt (51 PJ) |
| 5.3 Bio-waste of wood industry by-products | 5.59 Mt (56 PJ) |

Feedstock assessment



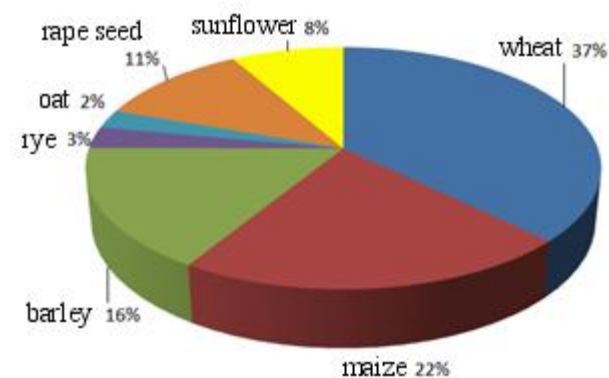
Straw: biomass potential and energy



The most promising kind of biomass for energy purposes is straw.

There are 5 'hot spots' regions:

1. Aquitaine, France
2. Pointou-Charentes, France
3. Central Region, France
4. Southern Hungary
5. Western Romania



The share of each type of crop straw (EU-27) Sources: Eurostat 2011

GEOPORTAL

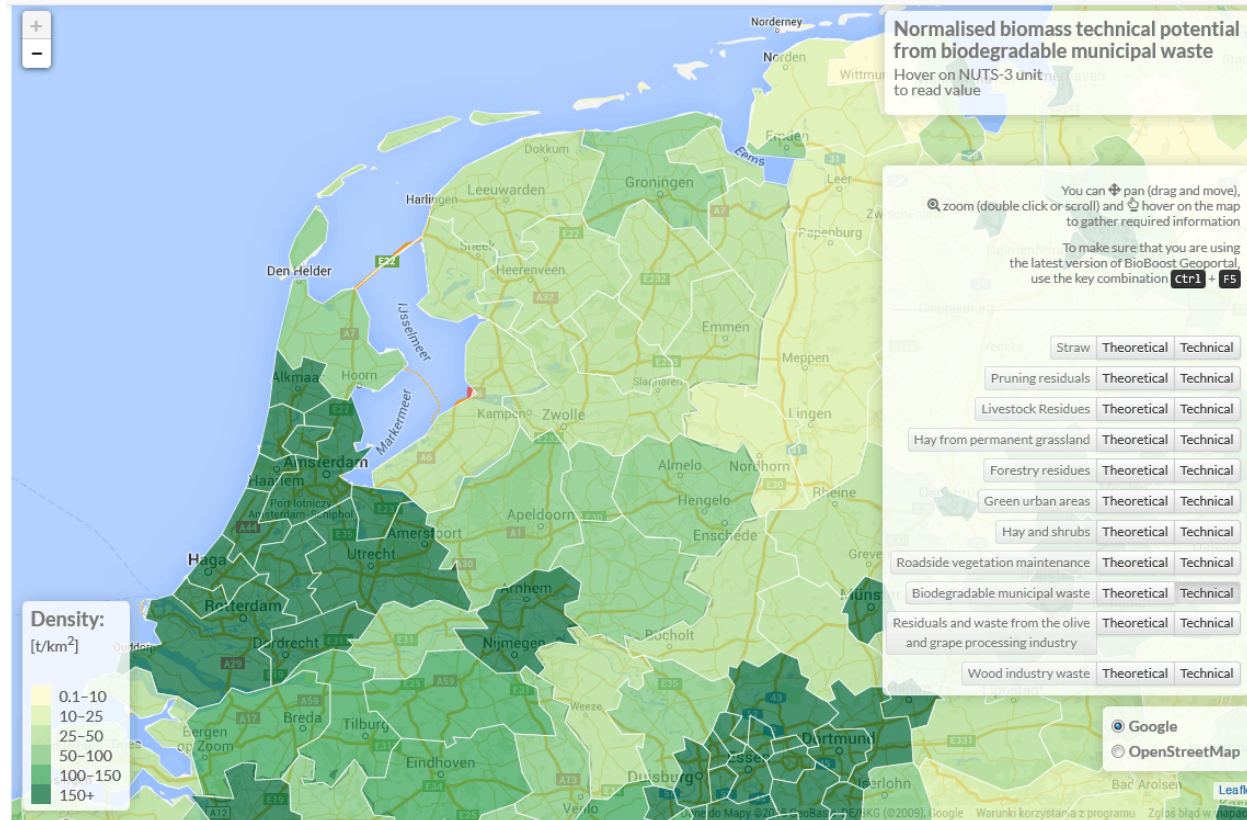
A geoportal is a type of web portal used to find and access via the Internet:

- geographic information (geospatial information)
- associated geographic services (display, editing, analysis, etc.)

Geoportals are important for effective use of geographic information systems (GIS) and a key element of Spatial Data Infrastructure (SDI).

An interactive map is based on the Web browser on the visitor side (client side)

*when releasing data (i.e., the server side [server-side]), no special action is required, any special infrastructure, databases, applications, and any plugins (Flash, Java), or GIS software, except for the web server.



☰ To view the statistics, enable calculating, and then click any units on the map and "Show summary table" button

⏻ Enable calculating

☰ Show summary table

Number of selected NUTS 0

✕ Remove all

☰ Map description

The map presents the technical potential of biodegradable municipal waste, bio-waste of food industry and forest industry waste. To calculate technical biodegradable municipal waste potential a geostatistical and geoprocessing analyses were applied for finding the most customised barrier separating urban areas from scattered settlements. In the result the minimal area, where technical potential was taken into account, was defined as a subset of min. 3 pixels (3 km²) with potential greater than 30 t for each one. Additionally all pixels with potential greater than 120 t were assumed. For calculating low heating value 6.7 GJ/t was assumed.

Full description can be found here: [Download report \(11.7 MB - PDF file\)](#)



BioBoost Geoportal

Knowledge Base

Database Organisation Geographical Information System (GIS)

Database

EUROSTAT is the statistical office of the European Union situated in Luxembourg. Its task is to provide the European Union with statistics at European level that enable comparisons between countries and regions http://epp.eurostat.ec.europa.eu/portal/page/portal/about_eurostat/introduction

Corine Land Cover Map is one of the subjects included in CORINE system to collect information on the forms of land use: <http://www.eea.europa.eu/data-and-maps/data/corine-land-cover-2006-raster-2>

Soil Datasets A collection of maps which represent all attributes that are present in the in the Soil Geographical Database of Eurasia at scale 1:1,000,000 (version 4 beta) and the PedoTransfer Rules Database (version 2.0). <http://eusoils.jrc.ec.europa.eu/library/maps/maps.html>

Natura 2000 Map presents wide network of nature protection areas <http://natura2000.eea.europa.eu/>

OpenStreetMap (OSM) OpenStreetMap is a collaborative project that has been developed in order to create a free editable map of the world. <http://www.openstreetmap.org>

Net Primary Productivity map (NPP) products for Europe and North Africa is derived from simulations with the Biosphere Energy Transfer (BETHY/DLR) model. It is a fixed grid map in rectangular projection annotated with latitude, longitude, and WGS84 date with a spatial resolution of 1km2. http://wdc.dlr.de/data_products/SURFACE/npp.php

SAGE // Crop Calendar Dataset - this dataset is the result of digitising and geo-referencing existing observations of crop planting and harvesting dates. http://www.sage.wisc.edu/download/sacks/crop_calendar.html

TBFR-2000 is database that includes statistical and descriptive information together with analysis undertaken by high level experts in the following thematic areas: Area of Forest and Other Wooded Land, Ownership and Management Status, Wood Supply and Carbon Sequestration; Biological Diversity and Environmental Protection; Forest Condition and Damage; and Protective and Socio-Economic Functions.

Close

Density: [t/km²]

0.1-10
10-25
25-50
50-100
100-150
150+

Google
OpenStreetMap
Leaflet

Knowledge base

BioBoost Geoportal

Knowledge Base Request a data Contact

Request a data

To request data please feel the form and send it to mwalker@iung.pulawy.pl

[Download form \(0.014 MB - Docx file\)](#)

Close

Visualised biomass technical potentials in NUTS-3

NUTS-3 unit value

You can pan (drag and move), zoom (double click or scroll) and hover on the map to gather required information.

To make sure that you are using the latest version of BioBoost Geoportal, use the key combination **Ctrl** + **F5**

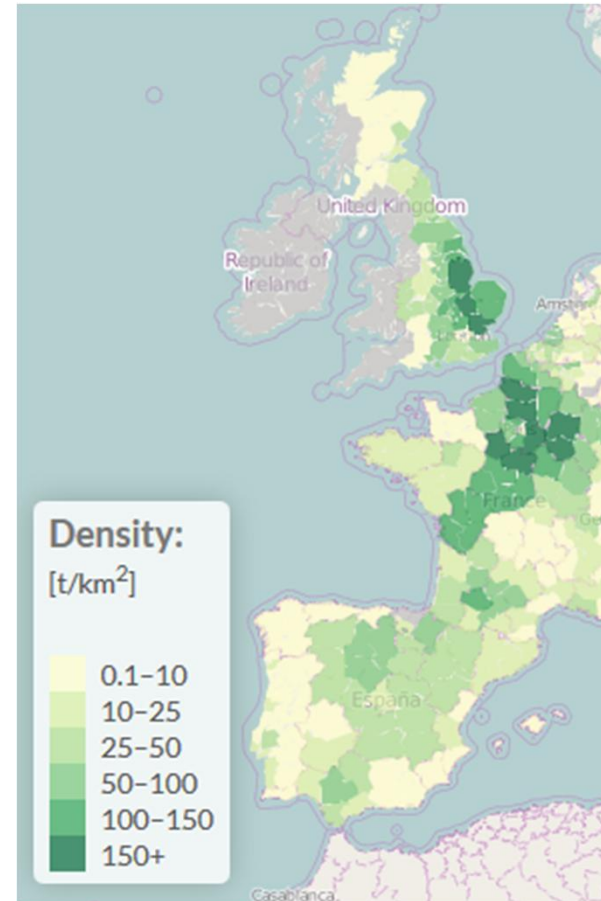
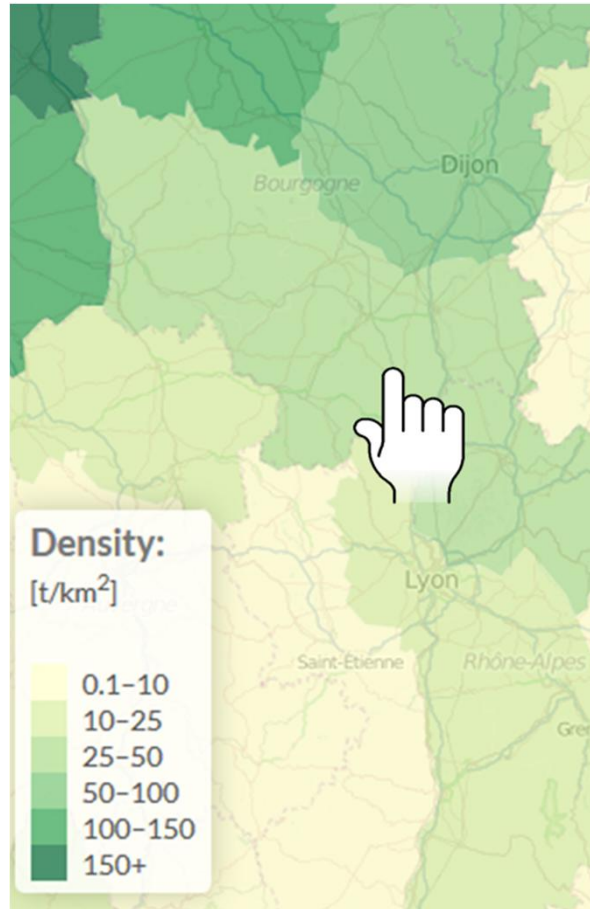
| | Theoretical | Technical |
|--|-------------|-----------|
| Straw | | |
| Pruning residuals | | |
| Livestock Residues | | |
| Hay from permanent grassland | | |
| Forestry residues | | |
| Green urban areas | | |
| Hay and shrubs | | |
| Roadside vegetation maintenance | | |
| Biodegradable municipal waste | | |
| Residuals and waste from the olive and grape processing industry | | |
| Wood industry waste | | |

Density: [t/km²]

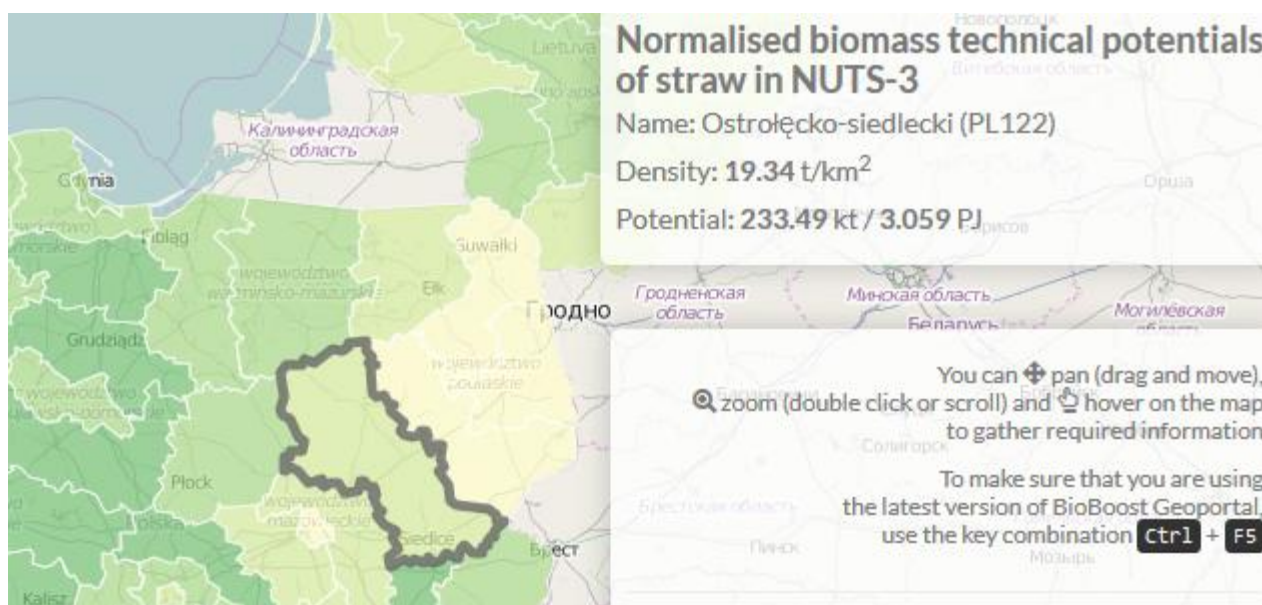
- 0.1-10
- 10-25
- 25-50
- 50-100
- 100-150
- 150+

Google OpenStreetMap

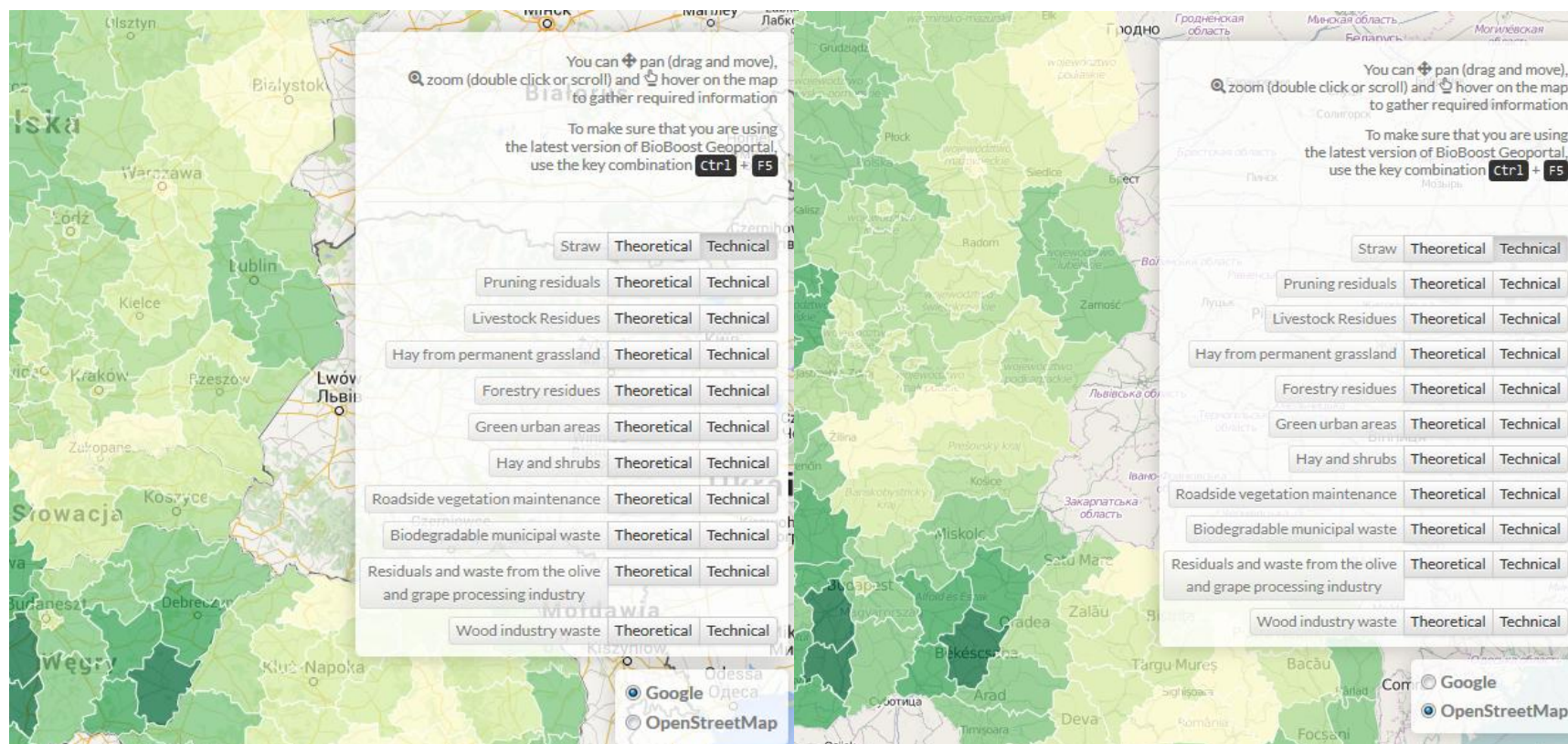
Request data form



Geoportal supported operations (panning and zooming)

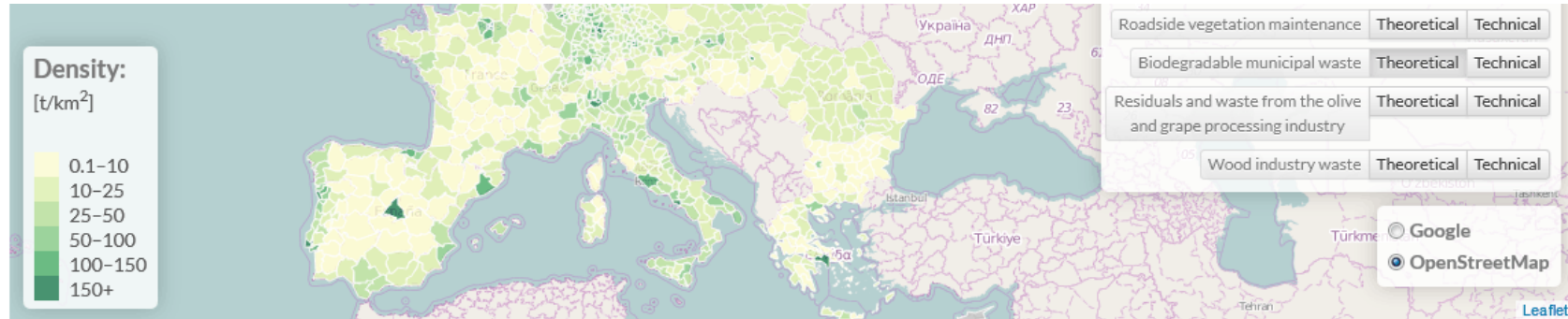


Geoportal supported operations (display of selected object attributes)





Geoportal supported operations (type of potential and change of a base layer)

Map description



 To view the statistics, enable calculating, and then click any units on the map and "Show summary table" button

 Enable calculating

 Show summary table


Number of selected NUTS 0


 Remove all


Map description

The map present the theoretical potential of biodegradable municipal waste, bio-waste of food industry and forest industry waste. Municipal waste consists to a larger extent of waste generated by households, but may also include similar wastes generated by small businesses and public institutions and collected by the municipality; this part of municipal waste may vary from municipality to municipality and from country to country, depending on the local waste management system. For areas not covered by a municipal waste collection scheme, the amount of waste generated is estimated. The waste paper and the cardboard (and textile) were excluded from the municipal biodegradable waste.

BIOMASS CALCULATOR

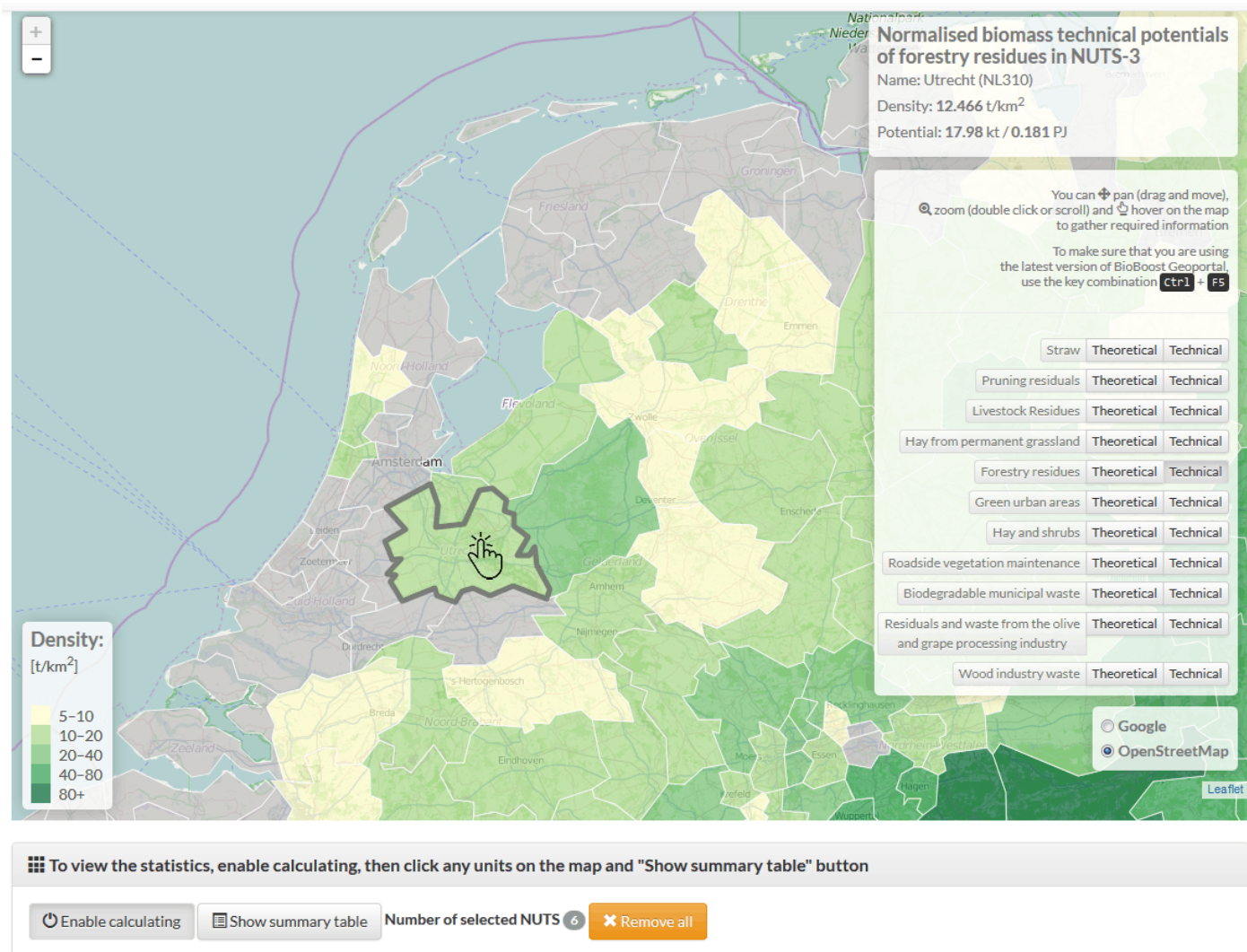
 To view the statistics, enable calculating, and then click any units on the map and "Show summary table" button

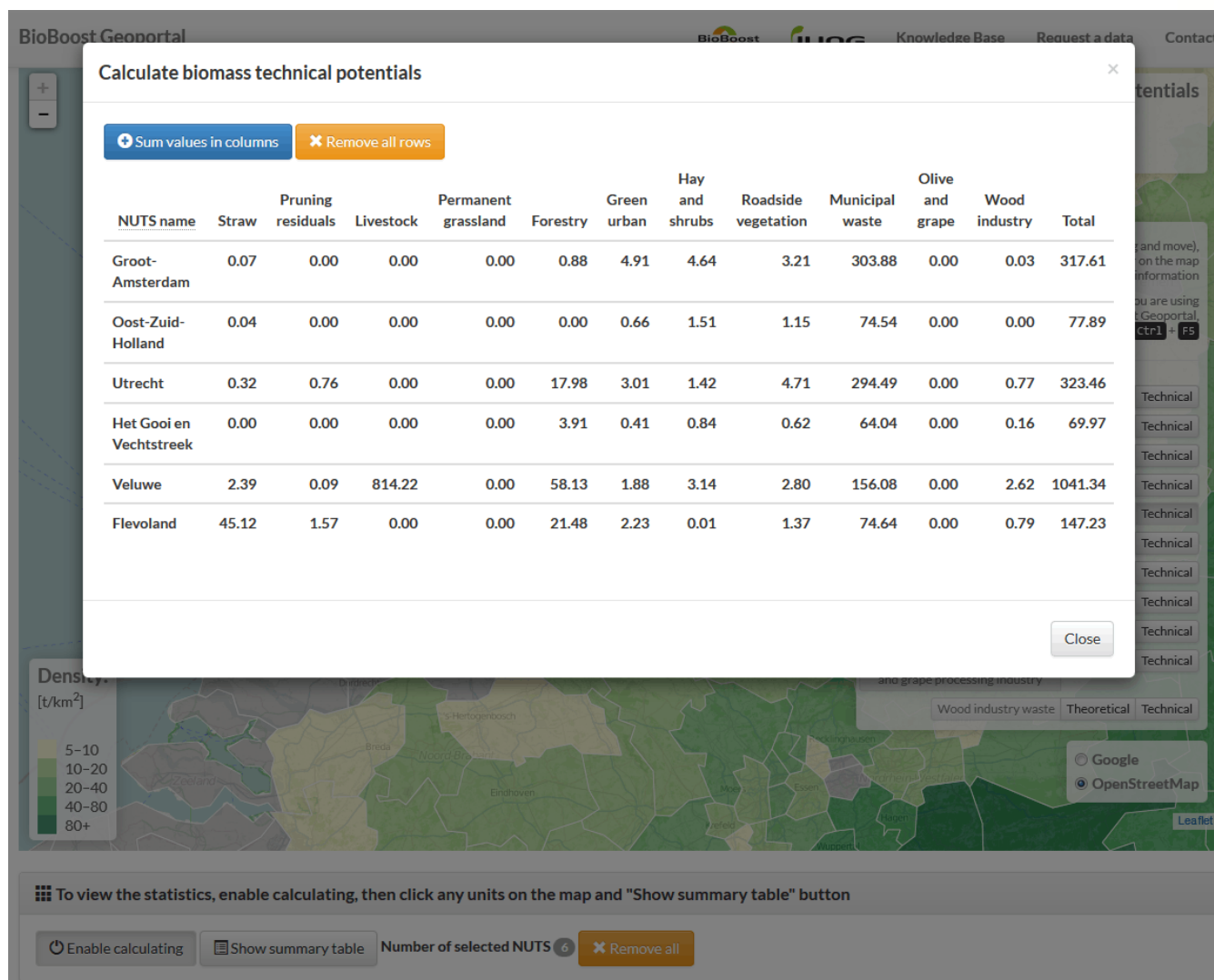
 Enable calculating

 Show summary table

Number of selected NUTS 5

 Remove all





ost Geonportal BioBoost Knowledge Base Request a data

Calculate biomass technical potentials

[+ Sum values in columns](#)
[✕ Remove all rows](#)

| NUTS name | Straw | Pruning residuals | Livestock | Permanent grassland | Forestry | Green urban | Hay and shrubs | Roadside vegetation | Municipal waste | Olive and grape | Wood industry | Total |
|-------------------------|-------|-------------------|-----------|---------------------|----------|-------------|----------------|---------------------|-----------------|-----------------|---------------|---------|
| Groot-Amsterdam | 0.07 | 0.00 | 0.00 | 0.00 | 0.88 | 4.91 | 4.64 | 3.21 | 303.88 | 0.00 | 0.03 | 317.61 |
| Oost-Zuid-Holland | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.66 | 1.51 | 1.15 | 74.54 | 0.00 | 0.00 | 77.89 |
| Utrecht | 0.32 | 0.76 | 0.00 | 0.00 | 17.98 | 3.01 | 1.42 | 4.71 | 294.49 | 0.00 | 0.77 | 323.46 |
| Het Gooi en Vechtstreek | 0.00 | 0.00 | 0.00 | 0.00 | 3.91 | 0.41 | 0.84 | 0.62 | 64.04 | 0.00 | 0.16 | 69.97 |
| Veluwe | 2.39 | 0.09 | 814.22 | 0.00 | 58.13 | 1.88 | 3.14 | 2.80 | 156.08 | 0.00 | 2.62 | 1041.34 |
| Flevoland | 45.12 | 1.57 | 0.00 | 0.00 | 21.48 | 2.23 | 0.01 | 1.37 | 74.64 | 0.00 | 0.79 | 147.23 |
| Total | 47.94 | 2.41 | 814.22 | 0.00 | 102.38 | 13.10 | 11.56 | 13.86 | 967.67 | 0.00 | 4.36 | 1977.50 |

Close

Full description can be found here:

 Download report (11.7 MB - PDF file)

The download button for D.1.2.

Geoportal is located on IUNG servers

(ServerName

bioboost.iung.pl,

ServerAlias

www.bioboost.iung.pl

bioboost.iung.pulawy.pl

www.bioboost.iung.pulawy.pl



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